

REMARKS

Claims 1-19 are pending in the application. The status of the application is as follows:

Claims / Section	35 U.S.C. Sec.	References / Notes
19	Objection	<ul style="list-style-type: none">• Terminology
8	§112, Second Paragraph	<ul style="list-style-type: none">• Inconsistently defined actuator
1-7, 9, 10 & 15-19	§102(e) Anticipation	<ul style="list-style-type: none">• Snowbarger, et al. (U.S. Patent No. 7,079,021).
13	§103(a) Obviousness	<ul style="list-style-type: none">• Snowbarger, et al. (U.S. Patent No. 7,079,021); and• Rosenberg (U.S. Patent No. 6,300,937).
14	§103(a) Obviousness	<ul style="list-style-type: none">• Snowbarger, et al. (U.S. Patent No. 7,079,021); and• Scheideler (U.S. Pub. No. 2003/0188583).

5 Applicants have amended claim 19 and have cancelled claim 5.

Applicants thank the Examiner for the non-finality of the last office action and the removal of the previous bases for objection and rejection. Applicants have further provided claims 20 and 21 for consideration.

Applicants' use of reference characters below is for illustrative purposes
10 only and is not intended to be limiting in nature unless explicitly indicated.

CLAIM OBJECTIONS TO CLAIM 19

1. *Applicants have amended claim 19 so that "control element" is replaced with "process valve".*

In the OA, on p. 2, the Examiner objected to claim 19, indicating that
15 "control element" should be replaced with "process valve". In accordance with

the Examiner's suggestion, Applicants have amended claim 19 to replace the language as suggested by the Examiner. Applicants respectfully request that the objection to claim 19 be withdrawn from the application.

35 U.S.C. §112, SECOND PARAGRAPH, CLAIM 8 INDEFINITENESS

5 2. *Applicants have cancelled claim 8.*

In the OA, on p. 2, the Examiner rejected claim 8 as being indefinite, since it appeared to mix hydraulic and pneumatic actuators. Claim 8 was inadvertently left in the application following a prior amendment which directed the invention to pneumatically operated systems and methods. Applicants have thus cancelled 10 claim 8 from the application and request that the 35 U.S.C. §112 rejection be withdrawn from the application.

35 U.S.C. §102(e) ANTICIPATION OF CLAIMS 1-7, 9, 10 & 15-19 BY SNOWBARGER

3. *Snowbarger fails to teach or suggest the element of controlling the pneumatic actuator depending on the control signal aided by the control unit to 15 operate the pneumatic actuator for the partial movement of the process valve from the initial condition and therefore does not anticipate independent claims 1 and 9 of the present invention.*

In the OA, on pp. 3-4, the Examiner rejected claim 1 as being anticipated by Snowbarger. The Examiner cited various sections of Snowbarger as reading 20 on each of the elements of claim 1.

Although the Examiner cited to various sections of Snowbarger, the Examiner did not provide an indication as to which elements in the Snowbarger

disclosure correspond to the claimed elements in the present application, and therefore the Applicants must infer the corresponding elements.

In the bottom three lines on p. 3, the Examiner cites to Snowbarger at 3/36-38 as disclosing "generating a control signal for partial movement of the 5 process valve aided by the position controller". This portion of Snowbarger refers to the Digital Valve Controller (DVC) 14 shown in Figure 1, and therefore it appears the Examiner is reading this element on the "position controller" as claimed in claim 1 and as illustrated by way of example by reference character 7 in Figure 1 of the present application.

10 The Examiner then cites to Snowbarger at 4/12-14 as disclosing "transferring the control signal from the position controller to the control unit via a signal connection". The only element in this portion cited by the Examiner that could read on the control unit of the present claim 1 is the solenoid control 20 of the solenoid valve 16.

15 However, given the previous interpretation of the Examiner that the DVC 14 is being read on the position controller of the present invention, Applicants respectfully disagree that Snowbarger teaches transferring a control signal from the position controller to the control unit via a signal connection. Given the elements as equated by the Examiner, to disclose this element of claim 1,

20 Snowbarger would have to disclose that the DVC 14 must send a control signal to the solenoid control 20. However, it is clear from Figure 1 of Snowbarger and supporting text that the DVC 14 (position controller, as being read by the Examiner) does not send a control signal to the control unit 20 (or solenoid valve

16), but rather directly varies the pressure on the pneumatic actuator 17 via a pneumatic line 28 (see Snowbarger at 5/47-56).

If the Examiner were to interpret the pressure variation provided by the DVC 14 to the control unit 16 as reading on the “control signal” of claim 1, then
5 clearly the following element of claim 1 could not be met:

controlling the pneumatic actuator depending on the control signal aided by the control unit to operate the pneumatic actuator for the partial movement of the process valve from the initial condition;

10 Since antecedent basis requires the control signal to be that generated by the position controller, and since the Examiner has equated the position controller as being the DVC, it is clear that the pressure variation provided by the DVC 14 via the pneumatic line 28, as disclosed by Snowbarger, does not control the pneumatic actuator depending on the control signal aided by the control unit
15 to operate the pneumatic actuator.

The Examiner cites to Snowbarger, 4/12-23, as disclosing “controlling the pneumatic actuator...”, however, this is clearly not utilizing the position controller, which the Examiner has equated to the DVC 14.

Snowbarger describes a test method in which a control signal is generated
20 by a switch 36 and transferred to the DVC 14 which transfers a pneumatic signal via a pneumatic line 28 to a pneumatic actuator 17 without the intervening control unit (solenoid 16) as would be required by claim 1. The solenoid 16 according to Snowbarger is maintained during the active test of the emergency shutdown system in a stand-by-position to provide fluid flow between the pneumatic lines
25 19 and 28 (see 5/31-34).

The present invention is not simply an obvious variation on the Snowbarger design, since Snowbarger's design does not test as many of the involved individual components as does the present invention. As noted in paragraph [0011] of the Specification:

5 The advantage achieved with the invention in comparison to the prior art is that all components of the safety circuit that must cooperate in the event of incident are included in the testing cycle. The test movement of the actuator to test the operational
10 capability does not ensue via circumvention of individual components that are safety-relevant in the event of incident, which is, for example, the case when a control signal is indirectly passed for testing over the control unit to the actuator without activating
15 the control unit (i.e., without intervention of) this control unit. A further advantage is that a separate control unit that is provided only to test the operational capability of the process control device can be saved.

Thus, a design such as Snowbarger is described as prior art in the
20 Specification, and the present invention is specifically distinguished from such known designs.

Claim 9 is an apparatus claim that is closely related to method claim 1 and, in relevant portions, requires:

25 the position controller comprising a control signal generator configured to generate a control signal for a partial movement of the process valve in the course of a test cycle for the process control device, and to transmit the control signal via a signal connection from the position controller to the control unit.

30 For reasons similar to those argued above with respect to claim 1, this limitation is not disclosed by Snowbarger.

Since all elements of independent claims 1 and 9 are not taught by Snowbarger, the remaining claims depending therefrom are not anticipated by

Snowbarger. Applicants respectfully request that the 35 U.S.C. §102 rejection be withdrawn from the present application. In the event the present rejection is maintained, Applicants respectfully request that the Examiner provide an indication of how the elements disclosed by Snowbarger (e.g., the solenoid 5 control 20, solenoid valve 16, Digital Valve Controller 14, etc.) are being read on the claimed elements of the present invention.

Applicants have added claims 20 and 21, which depend from claims 1 and 9 respectively, and require that the control signal be an electrical control signal, and respectfully request consideration of these new claims.

10 **35 U.S.C. §103(a), CLAIMS 13 AND 14 OBVIOUSNESS OVER COMBINATIONS OF SNOWBARGER, ROSENBERG, AND SCHEIDELER**

4. *Applicants rely on the arguments above with respect to the independent claims in the application, and note that the addition of Rosenberg and Scheideler (cited for other reasons by the Examiner), do not further serve to 15 obviate the independent claims.*

Without addressing the Rosenberg and Scheideler on their merits, Applicants respectfully assert that the addition of Rosenberg and Scheideler to the combination of references does not render the combination as obviating, since the combination fails to teach or suggest all of the elements of the 20 independent claims in the present application for reasons argued above, and given that neither Rosenberg nor Scheideler teach the elements of the independent claims that are missing from Snowbarger.

For these reasons, Applicants assert that the claim language of the independent claims clearly distinguishes over the prior art, and respectfully

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request that the Examiner withdraw the §103(a) rejection from the present application.

CONCLUSION

Inasmuch as each of the objections have been overcome by the 5 amendments, and all of the Examiner's suggestions and requirements have been satisfied, it is respectfully requested that the present application be reconsidered, the rejections be withdrawn and that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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